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| 10/539,161 | 06/14/2005 | Thomas Gradel | 190-90 | 2686 |

2746 7590 08/24/2007
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| EXAMINER |
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WOODALL, NICHOLAS W

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| ART UNIT | PAPER NUMBER |
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3733

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08/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/539,161

Applicant(s)

GRADEL ET AL.

Examiner

Nicholas Woodall

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-16 is/are rejected.
- 7) ☒ Claim(s) 17-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to applicant's amendment received on 06/12/2007.

Allowable Subject Matter

2. The indicated allowability of claims 15 and 16 is withdrawn in view of the reference(s) to Shih (U.S. Patent 6,136,002). Rejections based on the cited reference(s) follow.
3. Claims 17-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 11, 12, and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Shih (U.S. Patent 6,136,002).

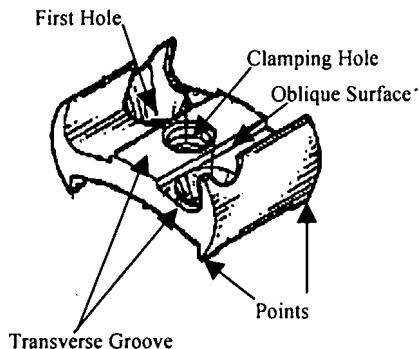
Regarding claims 11, 15, and 16, Shih discloses a device comprising at least one connecting sliding piece (see Figure 1 below). The connecting sliding piece is elongate in a general lengthwise direction and comprises a first hole capable of allow the passage and fixing of an anchoring screw. The connecting sliding piece further comprises receiving means capable of receiving a portion of a fastening rod along a transverse axis perpendicular to the lengthwise direction and to receive clamping

means capable of selectively clamping the fastening rod in the receiving means. The connecting sliding piece further comprises two points capable of penetrating bone to retain the connecting sliding piece on a bone, wherein the two points are disposed in the region of the sliding piece including the receiving means on the interior face of the connecting sliding piece and opposite the receiving means that are on the exterior face of the connecting sliding piece. The two points are parallel to and offset from each other in the direction of the transverse axis parallel to the fastening rod. The fastening rod is engaged in the end of the receiving means opposite the anchoring screw in the general lengthwise direction. Regarding claim 12, Shih discloses a device wherein each point is a generally triangular flat structure in a plane perpendicular to the direction of the transverse axis. Regarding claims 14 and 15, Shih discloses a device wherein the interior face of the sliding connecting piece is capable of bearing against the vertebra and is concave and substantially cylindrical with a circular profile. Further regarding claim 15, Shih discloses a device wherein each point extends in a substantially radial direction of the cylindrical interior face of the connecting sliding piece and the first hole has an axis that is substantially radial relative to the cylindrical interior face of the connecting sliding piece so that the points and the anchoring screw converge toward the vertebra. Further regarding claim 16, Shih discloses a device further comprising a transverse exterior groove, a cylindrical bearing surface, a clamping hole, and an oblique bearing surface. The cylindrical bearing surface forms a first edge of the transverse groove opposite the first hole and conformed to receive a portion of the fastening rod. the clamping hole is located in the bottom of the transverse groove is

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separated from the first edge by a distance greater than the diameter of the fastening rod. The oblique bearing surface constitutes a second edge of the transverse groove and is inclined to the axis of the clamping hole.

Figure 1



Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brace (U.S. Patent 6,187,005) in view of Stucker (U.S. Patent 5,713,898).

Brace discloses the invention as claimed except for the interior surface of the sliding connecting piece comprises two points opposite the receiving means that are parallel and offset in the direction perpendicular to the longitudinal axis of the sliding connection piece. Stucker teaches a device comprising two points opposite the receiving means that are parallel and offset in the direction perpendicular to the

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longitudinal axis of the sliding connection piece in order to attach the device to bone (column 7 lines 14-18). It would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the sliding connecting piece of Brace with two points on the interior surface of the piece opposite the receiving means that are parallel and offset in the direction perpendicular to the longitudinal axis of the sliding connecting piece in view of Stucker in order to attach the device to bone.

Regarding claim 12, the combination of Brace and Stucker discloses the invention as claimed except for the points being generally triangular structures in a plane perpendicular to the direction of the transverse axis. It would have been an obvious matter of design choice to one skilled in the art at the time the invention was made to construct the points as a generally triangular flat structure in a plane perpendicular to the direction of the transverse axis, since applicant has not disclosed that such solve any stated problem or is anything more than one of numerous shapes or configurations a person ordinary skill in the art would find obvious for the purpose of providing a forming edge in the heating portion or clamp. In re Dailey and Eilers, 149 USPQ 47 (1966).

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brace (U.S. Patent 6,187,005) in view of Stucker (U.S. Patent 5,713,898) further in view of Zindrick (U.S. Publication 2004/0092929).

Regarding claim 13, the combination of Brace and Stucker disclose the invention as claimed except for the two triangular points comprising retaining teeth on two sides. Zindrick discloses a device comprising two points further including teeth on two sides in

order to provide increased surface contact with the vertebral bone page 4 paragraph 44). It would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the device of Brace modified by Stucker wherein the two triangular points included teeth on two sides in view of Zindrick in order to provide increased surface contact with the vertebral bone.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brace (U.S. Patent 6,187,005) in view of Stucker (U.S. Patent 5,713,898) in view of Zindrick (U.S. Publication 2004/0092929) further in view of Schafer (U.S. Patent 5,662,652).

The combination of Brace, Stucker, and Zindrick disclose the invention as claimed except for the interior face of the sliding connecting piece being concave and substantially cylindrical with a circular profile. Schafer teaches a bone plate that has a concave interior surface that is substantially cylindrical with a circular profile in order to create better contact between the bone plate and the bone surface (column 8 lines 5-11). It would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the sliding connecting piece of Brace modified by Stucker further modified by Zindrick with a concave interior surface that is substantially cylindrical with a circular profile in view of Schafer to create better contact between the bone plate and the bone surface.

Response to Arguments

10. Applicant's arguments filed 06/12/2007 have been fully considered but they are not persuasive. The applicant's argument that the combination of Brace and Stucker do not disclose all the points being located in the region of the sliding piece including the

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receiving means is not persuasive. The claims only require the device comprising two points that are capable of penetrating into bone. The examiner believes that the claims can only limit the location of the two points required by the claim and that the added language of "all the points" still references only the two points required by the claim. Therefore, the examiner believes the combination of Brace and Stucker disclose the limitation of the device having two points that are located in the region of the device including the receiving means. The examiner has presented new grounds of rejection as discussed above and has withdrawn previously indicated allowability of claims 15 and 16 as discussed above making this office action non-final.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Woodall whose telephone number is 571-272-5204. The examiner can normally be reached on Monday to Friday 8:00 to 5:30 EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NWWW

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